Michael A. Todt, Ph.D.

Cooperative Institute for Research in Environmental Sciences (CIRES)
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EDUCATION

Cornell University, Ithaca, NY *2010-2016*
Ph.D., Chemistry
-Advisor: H. Floyd Davis
-Thesis: *Dynamics of Molecular Photodissociation Studied Using Coherent Vacuum Ultraviolet*
M.S., Chemistry

Augustana University, Sioux Falls, SD *2006-2010*
B.A. (*Cum Laude*), Physics and Chemistry

WORK EXPERIENCE

Cooperative Institute for Research in Environmental Sciences Jan 2021 - present
Research Scientist I

· Instrument development and deployment for measuring atmospheric particulate concentrations.

Beckman Coulter Life Sciences Dec 2017 - Jan 2021
Sr. Applications Scientist

· Customer training development and presentation on particle characterization and counting instruments.

Colorado State University Oct 2016 - Dec 2017
Postdoctoral Fellow

· Designed and performed experiments on nano-scale photovoltaic semiconductor materials using high-resolution photo-electrochemical mapping techniques.

Cornell University Aug 2010 - Aug 2016
Graduate Research Assistant

· Planned and executed experiments on the photodissociation dynamics of small molecules upon absorption of light in the visible and ultraviolet ranges using molecular beam techniques.
· Developed methods for windowless, spatially isolated generation of extreme ultraviolet laser radiation.

SELECTED PUBLICATIONS

Todt, M.A., Datta, S., Rose, A., Leung, K., and H.F. Davis, "Subpicosecond HI Elimination in the 266 nm Photodissociation of Branched Iodoalkanes", *Phys. Chem. Chem. Phys.*, **22**, 27338-27347 (2020).

Todt, M.A., Isenberg, A.E., Nanayakkara, S.U., Miller, E.M., and J.B. Sambur, "Nanoflake Photoelectrochemistry Reveals Champion and Spectator Flakes in Exfoliated $MoSe_2$ Films", *J. Phys. Chem. C.*, **122**(12), 6539–6545 (2018).

Todt, M.A., Albert, D.R., and H.F. Davis, "High Intensity Vacuum Ultraviolet and Extreme Ultraviolet Production by Noncollinear Mixing in Laser Vaporized Media", *Rev. Sci. Instrum.*, **87**, 063106 (2016).

Albert, D.R., **Todt, M.A.**, and H.F. Davis, "A Low-Cost Quantitative Absorption Spectrophotometer", *J. Chem. Edu.*, **89**(11), 1432-1435 (2012).

Wells, E., **Todt, M.A.**, *et al.*, "Examining the feedback signals used in closed-loop control of intense laser fragmentation of CO^+", *Phys. Rev. A.*, **80**(6), 063402 (2009).